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| APPLICATION NO.   | FILING DATE          | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|----------------------|----------------------|---------------------|------------------|
| 10/734,711  | 12/12/2003           | Rie Kojima           | 10873.659USD1       | 2337             |
| 7590 03/23/2007 Hamre, Schumann, Mueller & Larson, P.C. P.O. Box 2902-0902  EXAMINER  MCDONALD, RODNEY GI |                      |                      | EXAMINER            |                  |
|   |                      |                      | ODNEY GLENN         |                  |
| Minneapolis, MN 55402 ART UNIT PAPE   |                      |                      |                     | PAPER NUMBER     |
|   |                      |                      | 1753                |                  |
|   |                      |                      |                     |                  |
| SHORTENED STATUTOR  | Y PERIOD OF RESPONSE | MAIL DATE            | DELIVERY MODE       |                  |
| 3 MOI   | NTHS                 | 03/23/2007           | PAPER               |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|  |   |   |   | <i></i> |  |  |  |
|--|---|---|---|---------|--|--|--|
|  |   | Application No.   | Applicant(s)  |         |  |  |  |
|  |   | 10/734,711  | KOJIMA ET AL.   |         |  |  |  |
|  | Office Action Summary   | Examiner  | Art Unit  |         |  |  |  |
|  | _   | Rodney G. McDonald  | 1753  |         |  |  |  |
| Pariod fo  | The MAILING DATE of this communication app  | pears on the cover sheet with the c   | orrespondence address   |         |  |  |  |
| Period fo  | • •   | VIO OET TO EVENE A MONTH  | C) OD TUIDTY (20) DAYC  |         |  |  |  |
| · WHIC<br>- Exte<br>after<br>- If NC<br>- Failu<br>Any | CORTENED STATUTORY PERIOD FOR REPLICHEVER IS LONGER, FROM THE MAILING Demoisors of time may be available under the provisions of 37 CFR 1.1 SIX (6) MONTHS from the mailing date of this communication. Depriod for reply is specified above, the maximum statutory period tree to reply within the set or extended period for reply will, by statute reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tin will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE | N. nely filed the mailing date of this communication D (35 U.S.C. § 133). |         |  |  |  |
| Status   |   |   |   |         |  |  |  |
| 1)[🔀]  | Responsive to communication(s) filed on 08 Ja   | anuary 2007.  |   |         |  |  |  |
|  |   | action is non-final.  |   |         |  |  |  |
| ,  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |   |         |  |  |  |
| ,  | closed in accordance with the practice under E  |   |   |         |  |  |  |
| Disposit   | ion of Claims   |   |   |         |  |  |  |
| 4)⊠  | Claim(s) 11-15 is/are pending in the applicatio   | n.  |   |         |  |  |  |
| ,,   | 4a) Of the above claim(s) is/are withdra  |   | •   |         |  |  |  |
| 5)□  | Claim(s) is/are allowed.  |   |   |         |  |  |  |
| 6)⊠  | Claim(s) 11-15 is/are rejected.   |   |   |         |  |  |  |
| 7)   | Claim(s) is/are objected to.  |   | •   |         |  |  |  |
| 8)[  | Claim(s) are subject to restriction and/o   | r election requirement.   |   |         |  |  |  |
| Applicat   | ion Papers  |   |   |         |  |  |  |
| 9)   | The specification is objected to by the Examine   | er.   |   | •       |  |  |  |
| •—   | The drawing(s) filed on is/are: a) acc  |   | Examiner.   |         |  |  |  |
|  | Applicant may not request that any objection to the   | drawing(s) be held in abeyance. See   | e 37 CFR 1.85(a).   |         |  |  |  |
|  | Replacement drawing sheet(s) including the correct  | tion is required if the drawing(s) is ob  | jected to. See 37 CFR 1.121(c   | d).     |  |  |  |
| 11)  | The oath or declaration is objected to by the Ex  | kaminer. Note the attached Office   | Action or form PTO-152.   |         |  |  |  |
| Priority (   | under 35 U.S.C. § 119   |   |   |         |  |  |  |
| 12)  | Acknowledgment is made of a claim for foreign   | priority under 35 U.S.C. § 119(a)   | )-(d) or (f).   |         |  |  |  |
| a)   | ☐ All b)☐ Some * c)☐ None of:   |   |   |         |  |  |  |
|  | 1. Certified copies of the priority documents have been received.   |   |   |         |  |  |  |
|  | 2. Certified copies of the priority documents have been received in Application No  |   |   |         |  |  |  |
|  | 3. Copies of the certified copies of the prior  | rity documents have been receive  | ed in this National Stage   |         |  |  |  |
|  | application from the International Burea  | ,   |   |         |  |  |  |
| * (  | See the attached detailed Office action for a list  | of the certified copies not receive   | d.  |         |  |  |  |
|  |   |   |   |         |  |  |  |
| Attachmen  | • •   | _   |   |         |  |  |  |
|  | ce of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948)   | 4) Interview Summary Paper No(s)/Mail Da  |   |         |  |  |  |
|  | mation Disclosure Statement(s) (PTO/SB/08)  | 5) 🔲 Notice of Informal P   |   |         |  |  |  |
| Pape   | er No(s)/Mail Date  | 6)  | •   |         |  |  |  |

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## **DETAILED ACTION**

## Claim Rejections - 35 USC § 112

Claims 11-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 is indefinite because it is unclear whether the claimed composition is to include both Ge and Sn. (i.e. (Ge, Sn))

Claim 11 is indefinite because it is unclear what A represents. i.e. is it in atomic percent, etc.

Claim 11 is indefinite because it is unclear what B represents. i.e. is it in atomic percent, etc.

## Response to Arguments

Applicant's arguments filed January 8, 2007 have been fully considered but they are not persuasive.

Applicant has argued that the prior art does not teach the claimed composition sputter deposited onto the substrate. While the Examiner agrees that the cited prior art does not teach the claimed composition where Ge, Sn, Sb, Te and an element or elements M is present the Examiner is unclear whether Sn is to be present together with the Ge. This is discussed above in 35 U.S.C. 112 rejections discussed above and needs to be clarified for the record.

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## Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M- Th with Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Rodney G. McDonald Primary Examiner

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RM March 20, 2007